Remarks

By this amendment, Applicant has amended claims 1–3, 6–19, 21–35. The following claims remain in the present application.

Independent Claims: 1, 6, 11, 17, 19, 21, 25, 28, and 32

Dependent Claims: 2–5, 7–10, 12–16, 18, 22–24, 26–27, 29–31, and 33–35.

Re-examination of the present application is requested. No new matter is added by this amendment.

The invention as recited in the claims herein recite a method and system for controlling access to a telecommunications system based upon criteria which include continued availability of decrementable resources. Simply put, the present invention is a method and system for an Internet service provider ("ISP") to control users' access to the Internet. Among the purposes of the invention are (a) controlling access in a desired manner to allocate limited bandwidth (such as by amount of time available or by access time), including denying or terminating access as needed to allocate the limited bandwidth; (b) provide a means for accounting for the bandwidth used or at least insuring that no user uses more than his or her allocated bandwidth; and (c) providing a means for "pre-paid" Internet access such that an account need not be established with an ISP before gaining access to the Internet.

Unlike the security or proxy systems of Short and Moriconi cited by Examiner which intervene at point of initial access only and which rely on criteria defined at the destination host processor, the invention herein permits or denies initial access at a gateway server, and continue to verify allowability of access using criteria *independent* of destination host processor targeted.

This is reflected in the claim limitation reciting that the criteria are "resolved wholly at the gateway server."

Moriconi, by contrast, shows a network security system in which a client accessing a destination server is queried as to its privileges for access. Moriconi specifically states that "a policy manager located on a server" and an "application guard located on the client" cooperate to grant or deny access to various components of the client. See Moriconi, p. 3, ¶ 0043. Thus, Moriconi requires resolution of the access levels at both the server and the client. This is clearly distinguishable from the claimed system in which access is determined solely at a gateway server.

Also of significance, the present system uses a "middle man" a gateway server between the requesting terminal and the destination host. Moriconi does not disclose or suggest such an intermediary server, but only discloses a client and a host which cooperate to determine access. This is logical, however, because Moriconi is directed to network security, which would require each destination host to directly query the client as the access allowed.

Additionally, the invention as recited in the claims herein utilizes decrementable criteria, criteria which apply to resources or events which may be consumed or dissipated, and which may be restored by incrementation in quantities as determined by the provider. For example, a criterion which allows a user to "purchase" telecommunications network connection time controls a resource which is decremented by network connection time, and is incremented as the user purchases additional time; a criterion which allows, for example, access between, for example 4:00PM and 6:00PM controls a resource which is replenished to a value of two hours at 4:00PM, and which is decremented with the passage of time, until becoming exhausted at

6:00PM at which point access would be denied until the next allowed time slot; a criterion which allows a user some fixed amount of monthly telecommunications network data traffic is decremented by network usage, and replenished at will. This is also not shown in Short or Moriconi which only determine whether access will be allowed and do not decrement the access criteria.

In addition to verifying satisfaction of criteria at point of initial network access, the inventions recited herein terminate access at such point as necessary decrementable criteria become exhausted. Thus, if access is permitted from 4:00PM - 6:00PM, and a user gains access at 5:45PM, that access needs to be terminated 15 minutes later, or if a user has 25 minutes of purchased time remaining, access for longer than 25 minutes is to be prevented, and the user who has 5 Mbytes of network traffic remaining cannot be permitted to download a 10 Mbyte file. Again, this is not shown in Short or Moriconi, which do not monitor the criteria with respect to the access to determine if the access should be terminated.

The invention as recited in amended claim 1 teaches the elements for a method of limiting access across a telecommunications network, based upon specified criteria, at least one of which is based upon limitations in the depletion of specified resources. As recited in the claims, such limitations are independent of the telecommunications network and, most importantly, the destination host because they are determined wholly at the gateway server.

Consumable resources may be time used, time until the end of a specified time/day range, time within a specified time range which time range may be available only on specified days of the week, account balance, allowable accesses within a specified time interval, or any other such resource which may be tracked, decremented from an allowable amount, and tested. Such

decrementing involves neither the telecommunications network nor the intended destination host, and is performed within the gateway server.

Specified criteria are evaluated as a whole, and may include such boolean requirements as: access within one of several listed time ranges, access on one of several listed days of the week, availability of account balance, or combination thereof, such as:

A.   Access between 6AM and 8AM, OR between 5PM and 9PM,

B.   ((Access between 5PM and 9PM) AND (day of the week being Monday OR Tuesday, OR Wednesday, OR Thursday OR Friday)), OR ((access between 9AM and 9PM) and (day of the week being Saturdays OR Sundays)), or

C.   (Access between 9AM and 5PM on Monday thru Friday AND an available account balance), OR (NOT (Access between 9AM and 5PM and day of the week Monday thru Friday)) (i.e. free access evenings and weekends).

Once access is allowed, periodic reverification is performed to ensure that required resources have not been depleted, that an allowable time range has not expired, that the time allocated has not been exhausted, that the account balance has not dropped below that acceptable minimum. While the period of re-examination may be predetermined, dynamically computed, or even random, it is not limited to such strictures and any method of causing reexamination of criteria may be employed.

Examiner has suggested that Short, U.S. Patent No. 6,636,894, anticipates this method of controlling access of a user to a telecommunications network. We respectfully disagree. None of the cited art discloses usage of decrementable resources or on-going verification of criteria.

Short deals with examining criteria provided by the targeted destination host, strictly at point of network connection, and does not address the decrementation, the on-going verification, or the independence of the criteria from the requirements of the destination. While Short does discuss providing a portal page with personalized information, including time of connection, Short does go further to show or suggest the monitoring of the connection between the requesting terminal, or the decrementation of a decrementable criterion in a user profile at a the gateway server, or the termination of the access of the requesting terminal if the decrementable criterion is exhausted. By contrast, the invention recited herein deals with criteria for access to the telecommunications network, determined at the gateway server, regardless of destination host, and continues to examine availability of decrementable resources, terminating connection to said telecommunications network should said decrementable resources become exhausted.

To illustrate by way of analogy, the criteria of Short are binary, either access is granted or access is not granted. Upon a determination that access is granted or denied, the user is redirected to a portal page and the gateway device acts "transparently" and any further network access criterion are determined by destination addresses as passed through the "transparent" gateway device. Short, col. 9, ll. 15–21 & 26–51. Once granted, access is neither monitored nor terminated by the gateway server. Again, this is logical because of the needs of a network security system. By contrast, the invention recited, being a telecommunications network access controller, would consider time used versus time available for the entire available network, would increment time used (decrement time available) on a continual basis and, should the time available become exhausted, would terminate the connection to the telecommunications network. Such functionality is not required of, nor is available in, the network security software of Short.

Nor is the element of a gateway server that resides between a requesting terminal and a destination host that wholly resolves network access and monitors access for the purpose of terminating access upon the exhaustion of a decrementable resource suggested in the prior art. As Examiner is aware, a prior art reference (or references when combined) must teach or suggest all the claimed limitations, M.P.E.P. section 2143, and obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention when there is some teaching, suggestion or motivation to do so found *either in the references themselves or in the knowledge generally available to those skilled in the art*. See In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988), M.P.E.P. section 2143.01.

Applicant submits that there is no motivation to modify the references cited. The functionality of the cited art falls into a very different venue that the invention herein recited. Network monitoring is a unique arena, totally separate from security and initial access tools. By way of analogy, network security may be likened to checking at the door to see if someone should be allowed into the store, while the recited invention is making sure there is a sufficient balance on their debit card.

That is, neither Short nor Moriconi shows a gateway server monitoring access and, based on that monitoring, decrementing a depletable criterion found in a profile identifier. Moreover, neither Short nor Moriconi shows a gateway server terminating access if, during access, the criteria become unsatisfied, including the exhaustion of a depletable criterion. Again, Short and Moriconi only show two modes: access granted or access denied. The present invention, through the claim limitation directed to terminating access upon the criteria becoming unsatisfied, has many modes such as : access granted until X:XX p.m. or access granted for X

additional minutes or access granted at $Y/minute until $X are exhausted, at which time the active access will be terminated. Since neither reference shows these elements, it cannot be said that they provide any suggestion of such a claim element.

In sum, Applicant respectfully submits that claim 1 is neither anticipated nor rendered obvious by Short, alone or in combination with Moriconi. Neither reference discloses a profile including a depletable criterion and neither reference discloses a gateway server monitoring access with a specific view to the exhaustion of a depletable criterion. Moreover, neither reference discloses a gateway server terminating access if the access criteria, including the depletable criterion, become unsatisfied. Finally, neither reference shows all of these actions being resolved at a gateway server independent of the telecommunications network, the requesting terminal, or the destination hosts.

These argument apply with equal force to the invention as recited in amended claims 6, 11, 21, 25, 28, and 32. These claims, like claim 1, teach a method and system for controlling access across a telecommunications network, based upon specified criteria, at least one of which is based upon limitations in the consumption of specified resources. However, there is an additional distinction between these claims and the cited references. Specifically, claims 6, 11, 21, 25, 28, and 32 recite that the data necessary to initiate contact with the gateway server is provided on removable computer-readable media.

This refers to an embodiment of the present invention in which a method and system for pre-paid Internet access could be provided. In essence, a user could purchase a removable computer-readable medium, such as an optical disc, smart card, magnetic stripe card, or the like. Using only the information on that removable computer-readable medium, the method

contemplates providing access to the user according to the profile identifier transmitted from the requesting terminal that is correlated to a profile stored at the gateway server. In other words, in a manner analogous to a pre-paid long distance phone card that is independent of the telephone and telephone system used or the recipient of the telephone call, the pre-paid internet computer-readable medium of the present invention is independent of the user's computer, the location or telecommunications system used, or the webpages (destination hosts) accessed. This is embodied in the claims which recite a computer-readable medium storing an address for a gateway server, resolving access wholly at the gateway server, and allowing access solely on the basis of the information stored at the computer-readable medium. In essence, this allows the user to insert the computer-readable medium into a computer terminal and gain access to, for example, the Internet without any additional action required. Additionally, since access granted solely on the basis of the information stored at the computer-readable medium, the computer-readable medium contains all the information needed to establish access and could, consequently, be transferred to another computer, or accessed from a different location, or used by a different user. In other words, identifying the computer, the location, or the user is not a prerequisite for providing access under the claimed invention.

This is distinguishable from the system of Short which specifically states that "[i]dentifying the user is *crucial* in authorizing access to networks or online services, as such services are typically provided for a fee and may be customized based upon the *user, user's location, or user's computer*." Short, col. 7, l. 66–col. 8, l. 2 (emphasis added). It is true that Short references the use of a media access control (MAC) as pointed out by Examiner. However, MAC is "associated with the *computer*" and, consequently, would not enable a user to, for

example, use a different computer to access the network. Short, col. 8, ll. 12 (emphasis added). In claim terms, a MAC is an attribute associated with the computer and, consequently, using a MAC is not the same as granting access "solely on the basis of the information stored on said computer-readable media."

Nor does Short suggest granting access without identifying the user. In fact, all the suggestions in Short for identifying the requesting terminal involve information unique to the computer ("MAC address"), unique to the user ("user name, ID"), or unique to the user's location ("communication port in a hotel room"), see Short, col. 8, ll. 12–18, and, consequently, neither disclose nor suggest granting access to a user "solely on the basis of the information stored on said computer readable media" as recited in the claims.

In summary, claims 6, 11, 17, 19, 21, 25, 28, and 32 are allowable over the cited references for the reasons advanced above with respect to claim 1. Additionally, these claims are allowable over the cited references because these references fail to disclose or suggest granting access to a requesting user based solely on the information stored on a computer readable media. To the contrary, the cited references require identification of the user, his computer, or his location as a *necessary prerequisite* to granting access.

The invention as recited in amended claim 17 teaches the elements for a method of limiting access across a telecommunications network, based upon specified criteria, at least one of which is based upon limitations on the allowable access time, where the gateway server includes the chronometer as well as the means to determining the time of day therefrom. Such limitations are independent of the telecommunications network and the destination host, and are

determined wholly within the gateway server based solely on the information stored on the computer-readable media.

Examiner has suggested that Short (6,636,894), in view of Moriconi (2001/0007133), anticipates this method of controlling access of a user to a telecommunications network. We respectfully disagree. The arguments presented above with respect to claims 1, 6, 11, 19, 21, 25, 28, and 32 apply with equal force here. As discussed above, neither Short nor Moriconi disclose resolving access solely on the basis of the information stored on a removable computer-readable media, thereby allowing access without regard to user, computer, or location.

Moreover, none of the cited art discloses usage of decrementable resources or ongoing verification of criteria. Short deals with examining criteria provided by the targeted destination host, strictly at point of network connection, and does not address the decrementation, the on-going verification, or the independence of the criteria from the requirements of the destination. Further, while Moriconi does disclose providing a chronometer at a destination host, Moriconi does not use the chronometer to control the decrementation and replenishment of available time. Nor does Moriconi disclose an ability to decrement the available time dynamically and, when such time is exhausted, terminate the network connection. By contrast, the recited invention would decrement time available and, should such time become exhausted *during the telecommunications network connection* would terminate such connection. Verification is ongoing in the present invention and is not simply performed at the initiation of each telecommunications network connection.

As Examiner is aware, a prior art reference (or references when combined) must teach or suggest all the claimed limitations, M.P.E.P. section 2143, and obviousness can only be

established by combining or modifying the teachings of the prior art to produce the claimed invention when there is some teaching, suggestion or motivation to do so found *either in the references themselves or in the knowledge generally available to those skilled in the art.* See In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988), M.P.E.P. section 2143.01.

As noted above, there is no suggestion in Short or Moriconi to grant access solely on the basis of information stored on a computer readable medium without identifying the user, his or her computer, or his or her location.

Moreover, there is no motivation to move the chronometer of Moriconi to the gateway server of Short. Recall that Moriconi is a two-point connection between server and client. In Moriconi, there is no intermediary, like the gateway server claimed. Moriconi provides a management station in a policy manager at the server. This is, as shown in FIG. 1 of Moriconi, an *endpoint*, i.e. a destination, not an intermediary point. If the management station of Moriconi (including the "time of day" criteria) were combined with Short, there is only motivation to place the management station at the destination, i.e. the online service or network of FIG. 1 of Short, not at an intermediate point. Moriconi never suggests that a chronometer can be placed anywhere other than the destination server. Short never suggests that a chronometer can be placed at the intermediate point. There is simply no basis or suggestion in the cited references for placing a chronometer in a gateway server.

In sum, claim 17 is allowable for the reasons advanced above with respect to claims 1, 6, 11, 19, 21, 25, 28, and 32. Additionally, claim 17 is allowable over the cited references because claim 17 recites a chronometer for the purpose of monitoring access and terminating access if, during access, certain time-related criteria are no longer satisfied. This is not shown in the cited

references which only show or suggest a chronometer at a destination host for simply denying

access in the first instance, rather than a chronometer at a gateway server to monitor and

terminate ongoing access.

These arguments apply with equal force to claims 2–4, 7–9, 12–15, 19, 24, 29–30, and

33–34 which were also rejected on the basis of Short in combination with Moriconi. To reiterate,

these claims utilize a dynamically depletable criteria in determining whether access is granted.

Once access is allowed, periodic reverification may then be performed to ensure that required

resources have not been depleted, that an allowable time range has not expired, that the time

allocated has not been exhausted, that the account balance has not dropped below that acceptable

minimum. While the period of re-examination may be predetermined, dynamically computed, or

even random, it is not limited to such strictures and any method of causing reexamination of

criteria may be employed.

Examiner has again suggested that Short (6,636,894), in view of Moriconi

(2001/0007133), anticipates this method of controlling access of a user to a telecommunications

network. We respectfully disagree. None of the cited art discloses usage of decrementable

resources or on-going verification of criteria. Short deals with examining criteria provided by

the targeted destination host, strictly at point of network connection, and does not address the

decrementation, the on-going verification, or the independence of the criteria from the

requirements of the destination. Further, while Moriconi does disclose providing a chronometer,

Moriconi does not use the chronometer to *control* the decrementation and replenishment of

available time. Rather, Moriconi only discloses the use of the chronometer to determine whether

access is to be granted in the first instance based on the time of day. Nor does Moriconi disclose

an ability to decrement said available time dynamically and, when such time is exhausted, terminate the network connection.

Moreover, Examiner has suggested that based on these references it would have been obvious to provide an account balance and decrement an account balance based on usage. Applicant respectfully disagrees. First, the cited references do not show active decrementation of an account balance. Rather, Short shows network usage (X Mbytes or Y minutes Z seconds for a particular session, for example) and Moriconi shows allowing or denying access based on time of day (access granted at 4:59 p.m. but denied at 5:00 p.m.). Neither shows active decrementation of an access criterion. Short never says that X Mbytes are available to a user and the system counts down from 10 Mbytes to 0 Mbytes or 30 minutes 0 seconds during the session. To the contrary, Short counts *up* from 0 Mbytes or *up* from 0 minutes 0 seconds. This is not decrementation, it is incrementation.

This is significant because of the effect. Short does not monitor the criteria during access and, therefore, decrementation is not necessary. That is, suppose the time elapsed in Short reaches 60 minutes or 90 minutes; under Short, this is irrelevant because the system does not monitor the access time. However, in the present invention, decrementable criteria are significant for the very fact that access is monitored and will be terminated upon exhaustion. Thus, suppose the time in the claimed invention reaches 0 minutes; under the claimed invention this is highly relevant because it could trigger termination unless some other provision, such as replenishment, is made.

To simply say that because Short counts upward is would be obvious to count downward is not enough. This is not an arbitrary choice on the part of Applicant. Decrementation serves a

purpose that is not expressed or suggested in Short. Similarly, to simply say that Short counts time upward, and therefore suggests counting an account balance (i.e. money) downward, is also not enough to sustain a prima facie case of obviousness because nothing in Short suggests depleting anything, let alone an account balance, during access.

As regards claims 5, 10, 16, 18, 20, 23, and 27, Examiner has cited Short in combination with Curry et al. The same arguments presented above apply with equal force here. The combination of Short and Curry fail to disclose or suggest using a gateway server that wholly resolves access to a network and monitors that access to terminate the access if, during the access, any of the criteria become unsatisfied. Therefore, Applicant respectfully submits that these claims are allowable as distinguishing over the cited references.

Claims 2–5, 7–10, 12–16, 20, 22–24, 26–27, 29–30, and 33–34 depend from claims 1, 6, 11, 17, 19, 21, 25, 28, and 32 and, therefore, are each allowable as depending from an allowable independent claim.

Conclusion

As amended, independent claims 1, 6, 11, 17, 19, 21, 25, 28, 31, 32, and 35 recite methods and systems for controlling access to a telecommunications or Internet system wherein criteria include decrementable criteria, subject to exhaustion, and subsequent reevaluation of criteria where non-satisfaction upon such reevaluation can cause the termination of a user's network access. These elements are not contained in cited art. Moreover, the cited art fails to disclose or suggest such decrementable criteria that are wholly resolved at a gateway server. Finally, the cited art fails to disclose or suggest granting access based on the information stored on a removable computer readable medium independent of the identity of the user, the computer

or the computer location. It is therefore respectfully submitted that claims 1 – 35 are allowable

over the cited art.

Re-examination and reconsideration of the application is respectfully requested. Should

Examiner believe that a telephone interview would advance the prosecution of this application,

the undersigned would invite and request such an interview.

Respectfully submitted,
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Dated: _September 3, 2004_   By: _[signature]_

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